



**LINK ELECTRONICS, INC.**

## VIDEO PROCESSING AMPLIFIER MODEL PRC-970



### FEATURES

- ◆ AGC
- ◆ H Timing
- ◆ VIT By-Pass, Delete, F1&F2
- ◆ Remote By-Pass
- ◆ Hard By-Pass
- ◆ Full Proc Controls
- ◆ Auxiliary Input
- ◆ No Input, Black Output
- ◆ True Dynamic Compression
- ◆ Sync Gain, Front Panel
- ◆ Burst Gain, Front Panel
- ◆ Black Clip, Front Panel

The PRC-970 was designed for the studio and TV transmitter applications. The front panel provides primary controls for Video Gain, Chroma Gain, Pedestal Level, and White Clip. For each of these controls, an LED shows the CAL position which overrides the internal presets. Other controls on the front panel include Video By-Pass, Field One and Field Two Pass/Delete, AGC On/Off, Black Clip, Sync Gain, Burst Gain, Subcarrier Coarse Phase, Subcarrier Fine Phase, and Horizontal Phase. A connector on the rear panel provides remote control of Video Gain, Chroma Gain, Pedestal Level, White Clip, Burst Gain, Sync Gain, and Black Clip.

The remote control is model PSR-970. The remote can be located up to 250 feet away from the main unit.

A new approach to video AGC is incorporated into the video and chroma level circuitry called "Dual Slope Release". The DSR constantly monitors sync tip, peak whites and chroma level and can keep each parameter within NTSC specified limits. Front panel LED's indicate when any of the AGC circuits are in operation, alerting the engineer to the fact that the incoming video needs to be corrected. A front panel switch can defeat any or all AGC's if so desired. Front panel LED's show the presence of Input Video, Auxiliary, and Reference.

Another feature that is important for transmitter site operation is the video detect/auxiliary select function. If the primary video feed is lost, the PRC-970 automatically checks for an auxiliary input. If no AUX signal is present, the PRC-970 will output a black burst signal of its own, generated within. A relay provides a Hard-By-Pass in case of AC power failure. In addition, By-Pass mode can be selected from the front panel or by remote control. A switch on the rear panel selects between differential input and non-differential. An external reference input is provided for the production studio who wishes to process the output of the switcher.

All of these features are packed into a one rack unit case. The unit is engineered to exacting standards of performance and reliability.

# MODEL PRC-970 PROCESSING AMPLIFIER

## SPECIFICATIONS

### INPUTS:

#### PRIMARY VIDEO IN:

Level: ..... 1Vpp  $\pm$ 6dB  
Input Impedance: .....  $75\Omega \pm 1\%$   
Configuration: ..... Differential, Single-Ended, Switchable

#### AUXILIARY VIDEO IN:

Level: ..... 1Vpp  $\pm$ 6dB  
Input Impedance: .....  $75\Omega \pm 1\%$   
Configuration: ..... Differential

#### EXTERNAL REFERENCE VIDEO IN:

Level: ..... 1Vpp  $\pm$ 6dB  
Input Impedance: .....  $>15K\Omega$  Looping  
Configuration: ..... Differential  
Return Loss: .....  $>40dB@3.58MHz$

### OUTPUT:

Processed Video:  
Number of Outputs: ..... Two (2) (Program and Monitor)  
Output Impedance: .....  $75\Omega \pm 1\%$   
Level: ..... 1Vp-p  $\pm$ 6dB  
Signal-to-Noise: .....  $>60dB$   
Hum: .....  $>55dB$   
H. Blanking: ..... Adjustable,  $8.4\mu S$  Minimum  
Frequency Response: ..... -1dB @ 7MHz  
..... -2dB @ 8MHz  
..... -3dB @ 10MHz  
Differential Gain: .....  $<0.2\%$   
Differential Phase: .....  $<0.1^\circ$   
Tilt: .....  $<0.5\%$   
Common Mode Rejection (All Inputs): .....  $>50dB$   
Propagation Delay: ..... 175nS  
Chroma to Luminance Delay: .....  $<20nS$

### FRONT PANEL CONTROLS:

Video Level (Contrast): .....  $>\pm 6dB$   
Black Level (Brightness): .....  $\pm 15$  IRE Units  
Chroma Level: ..... +6dB to -35dB  
White Clip: ..... 50 to 150 IRE Units  
Horizontal Phase: .....  $\pm 2.5\mu S$   
Burst Phase: .....  $360^\circ$   
Black Clip: ..... -40 IRE to +10 IRE  
Sync Amplitude: ..... -70 IRE to -5 IRE  
Burst Amplitude: ..... 60 IRE to  $< 5$  IRE

### POWER REQUIREMENTS:

Input Voltage: ..... 120/240 VAC  $\pm 10\%$   
Power: ..... 15 Watts

### MECHANICAL:

Height: ..... 1.75 Inches  
Width: ..... 19 Inches  
Depth: ..... 8.85 Inches  
Weight: ..... 5.25 Lbs.

